

Title (en)
IMAGE SENSOR HAVING REDUCED PARASITIC CAPACITANCE

Title (de)
BILDSSENSOR MIT REDUZIERTER PARASITÄRER KAPAZITÄT

Title (fr)
CAPTEUR D'IMAGES DOTÉ D'UNE CAPACITÉ PARASITE RÉDUITE

Publication
EP 3809693 B1 20231227 (EN)

Application
EP 20196067 A 20200914

Priority
KR 20190128980 A 20191017

Abstract (en)
[origin: EP3809693A1] Described is an image sensor including a pixel array including a plurality of pixels connected to row lines extending in a first direction and column lines extending in a second direction intersecting the first direction; a ramp voltage generator configured to output a ramp voltage; a sampling circuit including a plurality of comparators, each comparator of the plurality of comparators having a first input terminal connected to a column of the column lines and a second input terminal configured to receive the ramp voltage; and an analog-to-digital converter configured to convert an output of the plurality of comparators to a digital signal, wherein the plurality of comparators include a first comparator connected to a first column line, and a second comparator connected to a second column line adjacent to the first column line in the first direction, wherein each of the first comparator and the second comparator includes a first transistor and a second transistor disposed sequentially in the second direction, and wherein a gap between the first transistor of the first comparator and the second transistor of the first comparator is different from a gap between the first transistor of the second comparator and the second transistor of the second comparator.

IPC 8 full level
H04N 25/78 (2023.01); **H04N 25/617** (2023.01)

CPC (source: EP KR US)
H01L 27/14603 (2013.01 - KR); **H01L 27/14623** (2013.01 - US); **H01L 27/14636** (2013.01 - US); **H04N 25/60** (2023.01 - EP KR); **H04N 25/617** (2023.01 - EP); **H04N 25/75** (2023.01 - EP KR); **H04N 25/772** (2023.01 - EP KR US); **H04N 25/78** (2023.01 - EP)

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